

Application No. 10/066,988

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A vehicle horn activation system comprising:
 - b. A an activation surface for receiving contact by a user to activate a horn;
 - c. A a ferromagnetic element mechanically coupled to the activation surface;
 - d. A a magnetostrictive sensor coupled to the ferromagnetic element and generating a signal based upon stress in the ferromagnetic element caused by contact on the activation surface; and
 - e. A a horn switch activated based upon the signal from the magnetostrictive sensor.
2. (original) The vehicle horn activation system of claim 1 further including a horn activated based upon the activation of the horn switch.
3. (original) The vehicle horn activation system of claim 1 wherein the magnetostrictive sensor further includes an excitation coil generating an acoustic wave in the ferromagnetic element.
4. (original) The vehicle horn activation system of claim 3 wherein the magnetostrictive sensor further includes a detection coil generating an electrical current based upon the acoustic wave in the ferromagnetic element.
5. (original) The vehicle horn activation system of claim 4 further including a steering wheel, said ferromagnetic element mounted on said steering wheel.

Application No. 10/066,988

6. (original) The vehicle horn activation system of claim 5 wherein the steering wheel comprises a base generally circumscribed by a steering rim and having a centerpoint about which said steering wheel is rotatable, said ferromagnetic element mounted on said base.

7. (original) The vehicle horn activation system of claim 6 wherein said excitation coil and said detection coil are mounted generally on opposite sides of said centerpoint.

8. (original) The vehicle horn activation system of claim 6 wherein said excitation coil and said detection coil are mounted generally on the same side of said centerpoint.

9. (original) The vehicle horn activation system of claim 5 wherein said ferromagnetic element is generally planar and at least one of said detection coil and said excitation coil are coiled around at least a portion of said ferromagnetic element.

10. (original) The vehicle horn activation system of claim 9 wherein each of said detection coil and said excitation coil are coiled around at least a portion of said ferromagnetic element.

11. (original) The vehicle horn activation system of claim 4 wherein said detection coil and said excitation coil are both coiled around a single ferrite core.

12 – 19 (withdrawn)

Application No. 10/066,988

20. A vehicle switching system comprising:
- a. A ~~a~~ first activation surface for receiving force by a user to activate a ~~first vehicle function~~ vehicle horn; and
 - b. a ferromagnetic element including a first portion mechanically coupled to said first activation surface; and
 - b. c. A ~~a~~ magnetostrictive sensor coupled to the activation surface and generating a first signal based upon force applied to the first activation surface, said first signal activating said ~~first vehicle function~~ vehicle horn.

21. (canceled)

22. (canceled)

23. (currently amended) The vehicle switching system of claim 22 20 wherein said ferromagnetic element further includes a second portion mechanically coupled to a second contact surface, said magnetostrictive sensor generating a second signal based upon force applied to said second contact surface, said second signal activating a ~~second~~ vehicle function different from said ~~first vehicle function~~ vehicle horn.

24. (original) The vehicle switching system of claim 23 wherein the magnetostrictive sensor further includes an excitation coil generating an acoustic wave in the ferromagnetic element.

25. (original) The vehicle switching system of claim 24 wherein the magnetostrictive sensor further includes a detection coil generating an electrical current based upon the acoustic wave in the ferromagnetic element.

Application No. 10/066,988

26. (original)

27. (currently amended) The vehicle switching system of claim 20 further including ~~a first ferromagnetic portion coupled to said first activation surface and a~~ second ferromagnetic portion coupled to a second activation surface, said magnetostrictive sensor generating a second signal based upon force applied to said second contact surface, said second signal generating a second vehicle function different from said ~~first vehicle function~~ vehicle horn.

28. (original) The vehicle switching system of claim 27 wherein the magnetostrictive sensor includes an excitation coil and a detection coil generating said first and second signals.

29. (original) The vehicle switching system of claim 27 further including a ferromagnetic element comprising the first and second ferromagnetic portions.

30 – 33 (withdrawn)